23-nov-2017

**1**. Modifications related to two archive2 (Grid in mating, sde in UPDATE DA instead of Lp norm, GRD+SDE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| D-1  D-2  D-3  D-4  D-5  D-6  D-7 | Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE | 0.1444 0.2042  0 0  0 0  0.2279 0.1970  0.1983 0.0120  0.0983 0.0180  0.1828 0.0145  0.1923 0.0142  0.0131 0.0553  0 0  0 0  0 0  0.1818 0.0508  0.0209 0.0284  0.1759 0.0362  0.1067 0.0879  0.2007 0.0135  0.1031 0.0278  0.1901 0.0160  0.1947 0.0103  0.0792 0.1434  0 0  0 0  0 0  0.0876 0.0339  0.0082 0.0238  0.0855 0.0258  0.0297 0.0302 | 0.0738 0.1814  0.4134 0.3374  0.2790 0.2803  0.9168 0.1078  0.7270 0.0243  0.7698 0.0301  0.8234 0.0167  0.8353 0.0143  0 0  0 0  0 0  0.1289 0.2248  0.4653 0.0314  0.4884 0.1197  0.5646 0.0230  0.5077 0.0894  0.7226 0.0175  0.7341 0.0174  0.7211 0.0154  0.7282 0.0172  0.3927 0.0764  0.5599 0.1108  0.7452 0.0396  0.9295 0.0215  0.0794 0.0526  0.1010 0.0189  0.0864 0.0408  0.0969 0.0140 | 0.0002 0.0013  0.0058 0.0316  0.9655 0.0240  0.9870 0.0395  0.8764 0.0236  0.9224 0.0328  0.9824 0.0060  0.9866 0.0059  0.6354 0.1553  0.6181 0.1421  1.0000 0.0002  1.0000 0  0.9865 0.0061  0.9932 0.0043  0.9975 0.0020  0.9930 0.0090  0.7870 0.0143  0.7935 0.0147  0.7979 0.0155  0.7869 0.0202  0.6465 0.0275  0.6528 0.0281  0.8687 0.0277  0.9395 0.0236  0.0580 0.0371  0.0934 0.0114  0.0617 0.0325  0.0857 0.0131 | 0.0323 0.1172  0.0023 0.0066  0.9963 0.0046  0.9978 0.0049  0.9174 0.0270  0.9760 0.0181  0.9936 0.0044  0.9967 0.0022  0.8470 0.0479  0.8551 0.0630  1.0000 0.0002  1.0000 0  0.9936 0.0042  0.9977 0.0020  0.9999 0.0003  0.9993 0.0012  0.8459 0.0111  0.8350 0.0141  0.8392 0.0207  0.8396 0.0210  0.6281 0.0269  0.6385 0.0256  0.8299 0.0271  0.9076 0.0295  0.0435 0.0308  0.0802 0.0115  0.0381 0.0230  0.0752 0.0134 | 0 0  0.0719 0.2125  0.9878 0.0268  0.9668 0.0502  0.9699 0.0296  0.9851 0.0083  0.9974 0.0021  0.9961 0.0034  0.9283 0.0359  0.9227 0.0310  1.0000 0  1.0000 0  0.9960 0.0031  0.9988 0.0010  1.0000 0.0002  0.9999 0.0003  0.8585 0.0148  0.8553 0.0115  0.8592 0.0158  0.8633 0.0147  0.3796 0.0648  0.4134 0.1328  0.7070 0.0538  0.9554 0.0626  0.0900 0.0555  0.1530 0.0114  0.0995 0.0393  0.1514 0.0157 |

23-nov-2017🡪

**1**. Modifications related to two archive2 (Grid in mating, sde in UPDATE DA instead of Lp norm, GRD+SDE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| W-1  W-2  W-3  W-4  W-5  W-6  W-7  W-8  W-9 | Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE  Two-Ar  GRID  SDE  Grid+SDE | 0.6092 0.0124  0.6141 0.0133  0.6245 0.0129  0.6156 0.0123  0.4139 0.0150  0.3630 0.0290  0.4037 0.0193  0.4165 0.0157  0.5013 0.0156  0.5033 0.0187  0.4891 0.0179  0.4925 0.0128  0.2622 0.0152  0.2677 0.0141  0.2513 0.0157  0.2615 0.0156  0.3090 0.0135  0.3153 0.0165  0.3091 0.0153  0.3071 0.0157  0.3228 0.0156  0.3198 0.0138  0.3098 0.0152  0.3156 0.0157  0.2776 0.0146  0.2416 0.0221  0.2786 0.0171  0.2446 0.0230  0.6013 0.0140  0.4385 0.0245  0.5721 0.0223  0.5229 0.0263  0.2372 0.0120  0.2354 0.0127  0.2338 0.0108  0.2330 0.0169 | 0.9772 0.0049  0.9794 0.0048  0.9756 0.0048  0.9767 0.0045  0.2849 0.0851  0.4762 0.0503  0.3073 0.0856  0.4956 0.0484  0.2254 0.0150  0.2384 0.0156  0.2403 0.0126  0.2436 0.0135  0.3048 0.0172  0.3112 0.0152  0.3366 0.0134  0.3433 0.0156  0.2754 0.0144  0.2755 0.0141  0.2646 0.0126  0.2690 0.0150  0.2640 0.0245  0.2660 0.0155  0.2742 0.0212  0.2759 0.0228  0.4536 0.0150  0.4426 0.0246  0.4510 0.0173  0.4464 0.0204  0.2209 0.0173  0.2422 0.0256  0.2332 0.0245  0.2499 0.0261  0.3738 0.0212  0.3717 0.0247  0.3949 0.0179  0.3754 0.0282 | 0.9930 0.0026  0.9925 0.0035  0.9929 0.0025  0.9933 0.0029  0.2410 0.0827  0.4776 0.0513  0.2694 0.0803  0.4666 0.0936  0.1325 0.0178  0.1399 0.0189  0.1651 0.0091  0.1749 0.0166  0.2284 0.0195  0.2448 0.0190  0.2868 0.0193  0.3128 0.0190  0.2440 0.0127  0.2321 0.0117  0.2610 0.0132  0.2566 0.0132  0.2212 0.0289  0.1982 0.0299  0.2279 0.0330  0.2409 0.0396  0.4073 0.0203  0.4224 0.0202  0.4536 0.0195  0.4671 0.0132  0.1797 0.0201  0.1916 0.0221  0.1929 0.0292  0.2052 0.0255  0.3663 0.0580  0.3108 0.0340  0.3875 0.0538  0.3122 0.0375 | 0.9880 0.0044  0.9894 0.0041  0.9937 0.0028  0.9935 0.0034  0.0827 0.0586  0.2791 0.0645  0.2251 0.0732  0.4628 0.0612  0.0896 0.0193  0.0991 0.0192  0.1381 0.0149  0.1560 0.0150  0.2853 0.0178  0.3077 0.0161  0.3663 0.0201  0.3965 0.0195  0.2627 0.0167  0.2456 0.0180  0.3035 0.0145  0.3073 0.0123  0.1889 0.0393  0.1769 0.0369  0.2344 0.0358  0.2379 0.0316  0.3731 0.0235  0.3741 0.0278  0.4566 0.0200  0.4673 0.0177  0.1348 0.0275  0.1267 0.0292  0.1577 0.0407  0.1785 0.0292  0.5063 0.0196  0.4490 0.0322  0.5650 0.0589  0.4825 0.0680 | 0.9877 0.0049  0.9871 0.0038  0.9946 0.0026  0.9946 0.0023  0.0553 0.0363  0.1548 0.0829  0.1902 0.0726  0.4030 0.0981  0.0737 0.0193  0.0741 0.0197  0.1113 0.0154  0.1232 0.0163  0.2241 0.0166  0.2307 0.0179  0.2947 0.0205  0.3469 0.0224  0.2267 0.0252  0.2064 0.0167  0.3001 0.0152  0.3023 0.0103  0.1849 0.0303  0.1797 0.0340  0.2380 0.0264  0.2425 0.0287  0.2919 0.0190  0.3090 0.0213  0.4359 0.0261  0.4489 0.0207  0.1146 0.0401  0.0991 0.0325  0.1402 0.0341  0.1588 0.0332  0.4508 0.0217  0.4110 0.0306  0.5300 0.0668  0.4827 0.0642 |

05/12/2017🡪Just added SRA for comparison

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| D-1  D-2  D-3  D-4  D-5  D-6  D-7 | Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA | 0.1427 0.2017  0 0  0 0  0.2276 0.1984  0.4875 0.0196  0.1967 0.0145  0.1000 0.0188  0.1834 0.0133  0.1931 0.0113  0.2075 0.0107  0 0  0 0  0 0  0 0  0.2057 0.0107  0.1846 0.0523  0.0214 0.0288  0.1712 0.0341  0.1071 0.0881  0.1895 0.0653  0.1932 0.0135  0.0998 0.0241  0.1856 0.0131  0.1889 0.0108  0.2086 0.0114  0.0096 0.0247  0 0  0 0  0 0  0.2092 0.0119  0.0833 0.0334  0.0083 0.0245  0.0787 0.0247  0.0286 0.0283  0.1188 0.0254 | 0.0190 0.0695  0.1765 0.2752  0.1144 0.2193  0.7718 0.2196  0.9036 0.0085  0.7139 0.0289  0.7509 0.0308  0.8148 0.0153  0.8269 0.0160  0.8692 0.0089  0 0  0 0  0 0  0.0668 0.1273  0.9798 0.0053  0.4548 0.0318  0.4862 0.1223  0.5565 0.0253  0.4954 0.0933  0.6360 0.0852  0.7143 0.0183  0.7244 0.0124  0.7286 0.0152  0.7247 0.0136  0.7340 0.0125  0.2871 0.0689  0.3655 0.0883  0.5297 0.0573  0.7992 0.0473  0.9401 0.0074  0.0769 0.0528  0.1000 0.0152  0.0791 0.0390  0.0960 0.0117  0.1857 0.0121 | 0 0  0 0  0.7607 0.1261  0.9386 0.1051  0.9996 0.0007  0.8647 0.0209  0.9192 0.0326  0.9830 0.0060  0.9870 0.0041  0.9945 0.0023  0.6092 0.1897  0.5598 0.1608  0.9998 0.0006  1.0000 0  1.0000 0  0.9850 0.0065  0.9919 0.0035  0.9975 0.0020  0.9926 0.0097  0.9986 0.0014  0.7861 0.0163  0.7860 0.0206  0.7918 0.0155  0.7851 0.0152  0.8048 0.0131  0.3504 0.0462  0.3413 0.0475  0.6703 0.0747  0.8641 0.0587  0.9821 0.0092  0.0579 0.0365  0.0920 0.0144  0.0604 0.0322  0.0859 0.0131  0.1594 0.0126 | 0.0342 0.1244  0.0027 0.0082  0.9952 0.0054  0.9980 0.0034  1.0000 0  0.8990 0.0344  0.9725 0.0215  0.9913 0.0042  0.9957 0.0025  0.9978 0.0017  0.8201 0.0570  0.8403 0.0713  1.0000 0  1.0000 0  1.0000 0  0.9922 0.0051  0.9976 0.0017  0.9999 0.0003  0.9994 0.0010  0.9999 0.0003  0.8447 0.0125  0.8413 0.0174  0.8395 0.0193  0.8421 0.0199  0.8538 0.0201  0.4133 0.0457  0.4402 0.0395  0.7346 0.0468  0.8732 0.0450  0.9852 0.0078  0.0421 0.0310  0.0755 0.0102  0.0360 0.0196  0.0744 0.0112  0.0747 0.0162 | 0 0  0.0716 0.2114  0.9869 0.0311  0.9654 0.0534  1.0000 0  0.9710 0.0292  0.9845 0.0092  0.9976 0.0027  0.9967 0.0032  0.9999 0.0003  0.8578 0.0789  0.8345 0.0755  1.0000 0  1.0000 0  1.0000 0  0.9961 0.0024  0.9992 0.0010  1.0000 0  0.9998 0.0009  1.0000 0  0.8591 0.0107  0.8545 0.0121  0.8623 0.0151  0.8599 0.0137  0.8743 0.0167  0.3838 0.0588  0.4216 0.1308  0.7150 0.0496  0.9524 0.0662  0.9844 0.0087  0.0900 0.0523  0.1537 0.0125  0.0979 0.0393  0.1528 0.0098  0.1267 0.0331 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| W-1  W-2  W-3  W-4  W-5  W-6  W-7  W-8  W-9 | Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA  Two-Ar  GRID  SDE  Grid+SDE  SRA | 0.6161 0.0166  0.6151 0.0151  0.6160 0.0133  0.6164 0.0144  0.6164 0.0195  0.3920 0.0195  0.3454 0.0271  0.3872 0.0179  0.3988 0.0164  0.4163 0.0143  0.4676 0.0150  0.4769 0.0148  0.4607 0.0144  0.4650 0.0157  0.4963 0.0173  0.2340 0.0133  0.2428 0.0150  0.2271 0.0145  0.2336 0.0126  0.2508 0.0149  0.2928 0.0139  0.2989 0.0126  0.2851 0.0139  0.2855 0.0172  0.3022 0.0137  0.2913 0.0133  0.2944 0.0161  0.2854 0.0111  0.2843 0.0193  0.3067 0.0152  0.2759 0.0157  0.2473 0.0276  0.2725 0.0143  0.2360 0.0234  0.2843 0.0136  0.4119 0.0215  0.2746 0.0215  0.3798 0.0184  0.3388 0.0194  0.4852 0.0192  0.2160 0.0114  0.2172 0.0150  0.2097 0.0163  0.2092 0.0137  0.2232 0.0170 | 0.9747 0.0057  0.9780 0.0045  0.9731 0.0048  0.9767 0.0044  0.9702 0.0066  0.1682 0.0922  0.4064 0.0706  0.1863 0.0996  0.4288 0.0618  0.4657 0.0217  0.2091 0.0132  0.2234 0.0149  0.2280 0.0139  0.2333 0.0176  0.2561 0.0125  0.2554 0.0155  0.2664 0.0178  0.2861 0.0160  0.2908 0.0167  0.3861 0.0145  0.2762 0.0126  0.2707 0.0139  0.2645 0.0125  0.2589 0.0167  0.2663 0.0132  0.2673 0.0315  0.2674 0.0217  0.2670 0.0229  0.2749 0.0194  0.2691 0.0167  0.4485 0.0143  0.4422 0.0183  0.4513 0.0158  0.4459 0.0220  0.4981 0.0147  0.1458 0.0185  0.1603 0.0226  0.1440 0.0260  0.1587 0.0298  0.2349 0.0227  0.3536 0.0172  0.3588 0.0253  0.3797 0.0169  0.3582 0.0223  0.5284 0.0189 | 0.9937 0.0034  0.9917 0.0025  0.9934 0.0025  0.9930 0.0022  0.9848 0.0043  0.0475 0.0595  0.3189 0.0884  0.0553 0.0578  0.3105 0.1302  0.4284 0.0469  0.1138 0.0143  0.1159 0.0172  0.1436 0.0135  0.1561 0.0125  0.1676 0.0126  0.2157 0.0153  0.2238 0.0163  0.2577 0.0134  0.2845 0.0143  0.3754 0.0211  0.2429 0.0143  0.2348 0.0148  0.2617 0.0141  0.2566 0.0191  0.2165 0.0131  0.2050 0.0340  0.1807 0.0330  0.2172 0.0373  0.2320 0.0384  0.1659 0.0295  0.4093 0.0192  0.4153 0.0222  0.4525 0.0217  0.4622 0.0187  0.5430 0.0171  0.1002 0.0254  0.1194 0.0259  0.1104 0.0279  0.1282 0.0244  0.1955 0.0148  0.3991 0.0636  0.3317 0.0369  0.4223 0.0705  0.3215 0.0290  0.5786 0.0290 | 0.9874 0.0043  0.9895 0.0044  0.9930 0.0029  0.9946 0.0019  0.9906 0.0034  0.0135 0.0212  0.1181 0.0529  0.0650 0.0502  0.2788 0.0759  0.4727 0.0505  0.0643 0.0176  0.0745 0.0225  0.1106 0.0117  0.1283 0.0153  0.1446 0.0144  0.2699 0.0149  0.2899 0.0195  0.3503 0.0195  0.3766 0.0205  0.4793 0.0267  0.2625 0.0158  0.2461 0.0180  0.3080 0.0162  0.3037 0.0153  0.2255 0.0202  0.1684 0.0444  0.1555 0.0401  0.2200 0.0451  0.2265 0.0382  0.1441 0.0223  0.3668 0.0210  0.3739 0.0272  0.4566 0.0210  0.4684 0.0147  0.5730 0.0150  0.1161 0.0337  0.1134 0.0300  0.1389 0.0381  0.1627 0.0260  0.1588 0.0194  0.5142 0.0223  0.4538 0.0313  0.5699 0.0572  0.4834 0.0613  0.6639 0.0305 | 0.9872 0.0039  0.9875 0.0036  0.9942 0.0024  0.9942 0.0028  0.9953 0.0027  0.0112 0.0135  0.0634 0.0643  0.0662 0.0470  0.2501 0.1176  0.5220 0.0330  0.0535 0.0173  0.0547 0.0159  0.0941 0.0141  0.1021 0.0146  0.1263 0.0151  0.2182 0.0164  0.2332 0.0139  0.2833 0.0227  0.3333 0.0227  0.4761 0.0307  0.2287 0.0197  0.2066 0.0175  0.3001 0.0135  0.2998 0.0118  0.1785 0.0231  0.1331 0.0332  0.1362 0.0380  0.1908 0.0426  0.1991 0.0479  0.1200 0.0252  0.2965 0.0197  0.3052 0.0242  0.4363 0.0276  0.4502 0.0185  0.6166 0.0192  0.0972 0.0358  0.0846 0.0302  0.1220 0.0360  0.1357 0.0290  0.1476 0.0155  0.4602 0.0229  0.4260 0.0261  0.5346 0.0686  0.4789 0.0535  0.7022 0.0219 |

Date: 11-12-2017: Change in update DA file : use **sqrt (distance** ) : all are two ar modifications

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| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| D-1  D-2  D-3  D-4  D-5  D-6  D-7 | Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt) | 0.1435 0.2031  0 0  0 0  0.2236 0.1943  0.4923 0.0155  0.0050 0.0272  0.0520 0.1054  0.1973 0.0155  0.1017 0.0197  0.1832 0.0163  0.1897 0.0118  0.2074 0.0099  0.1253 0.0149  0.1425 0.0133  0 0  0 0  0 0  0 0  0.2077 0.0127  0 0  0 0  0.1814 0.0507  0.0201 0.0272  0.1700 0.0346  0.1069 0.0882  0.1844 0.0635  0.1155 0.0253  0.1040 0.0688  0.1926 0.0147  0.1017 0.0276  0.1861 0.0137  0.1935 0.0122  0.2058 0.0131  0.1237 0.0157  0.1369 0.0143  0.0121 0.0308  0 0  0 0  0 0  0.2070 0.0124  0 0  0.0152 0.0339  0.0836 0.0327  0.0089 0.0266  0.0776 0.0262  0.0298 0.0286  0.1166 0.0247  0.0478 0.0109  0.0767 0.0200 | 0.0202 0.0743  0.1761 0.2754  0.1138 0.2166  0.7721 0.2240  0.9053 0.0091  0.0149 0.0809  0.0494 0.1116  0.7151 0.0309  0.7531 0.0346  0.8218 0.0125  0.8256 0.0148  0.8707 0.0104  0.6538 0.0367  0.7091 0.0345  0 0  0 0  0 0  0.0663 0.1255  0.9793 0.0041  0 0  0 0  0.4939 0.0292  0.5121 0.1345  0.5975 0.0250  0.5277 0.0870  0.6644 0.0965  0.2812 0.0588  0.3412 0.0584  0.7106 0.0120  0.7245 0.0138  0.7228 0.0151  0.7196 0.0162  0.7344 0.0115  0.6927 0.0174  0.7055 0.0149  0.2856 0.0645  0.3708 0.0890  0.5243 0.0605  0.8000 0.0452  0.9388 0.0064  0.3585 0.1460  0.4972 0.1102  0.0761 0.0530  0.1009 0.0129  0.0799 0.0384  0.0962 0.0125  0.1832 0.0118  0.0369 0.0179  0.0895 0.0202 | 0 0  0 0  0.6642 0.1520  0.9314 0.1136  0.9997 0.0007  0.4566 0.2611  0.7933 0.1879  0.8784 0.0205  0.9256 0.0307  0.9830 0.0056  0.9890 0.0045  0.9944 0.0024  0.9372 0.0231  0.9654 0.0110  0.6021 0.1981  0.5407 0.1651  0.9996 0.0008  1.0000 0  1.0000 0  0.9981 0.0033  1.0000 0.0002  0.9841 0.0076  0.9909 0.0052  0.9979 0.0016  0.9928 0.0087  0.9984 0.0014  0.9745 0.0088  0.9865 0.0111  0.7899 0.0122  0.7916 0.0121  0.7890 0.0168  0.7872 0.0190  0.8046 0.0152  0.7772 0.0126  0.7764 0.0130  0.3586 0.0530  0.3544 0.0494  0.6816 0.0782  0.8716 0.0616  0.9847 0.0065  0.3239 0.0350  0.3663 0.0977  0.0618 0.0406  0.0928 0.0090  0.0641 0.0322  0.0835 0.0121  0.1747 0.0110  0.0206 0.0170  0.0754 0.0170 | 0 0  0 0  0.8814 0.1541  0.9341 0.1090  1.0000 0  0.7344 0.2849  0.8006 0.2323  0.8911 0.0341  0.9709 0.0207  0.9911 0.0042  0.9951 0.0035  0.9980 0.0014  0.9760 0.0123  0.9888 0.0046  0.8022 0.0582  0.8094 0.0856  1.0000 0  1.0000 0  1.0000 0  1.0000 0.0002  1.0000 0  0.9930 0.0037  0.9978 0.0014  0.9998 0.0005  0.9994 0.0009  0.9999 0.0003  0.9958 0.0026  0.9967 0.0024  0.8464 0.0126  0.8380 0.0135  0.8435 0.0185  0.8371 0.0225  0.8538 0.0139  0.8414 0.0122  0.8428 0.0133  0.4219 0.0463  0.4463 0.0371  0.7381 0.0406  0.8715 0.0483  0.9850 0.0093  0.4838 0.0424  0.5117 0.1041  0.0432 0.0318  0.0778 0.0123  0.0386 0.0245  0.0753 0.0107  0.0764 0.0181  0.0128 0.0106  0.0606 0.0170 | 0 0  0.0367 0.1436  0.9494 0.1006  0.8924 0.1640  1.0000 0  0.6741 0.3298  0.6741 0.2645  0.9672 0.0306  0.9828 0.0091  0.9971 0.0021  0.9967 0.0028  0.9997 0.0005  0.9945 0.0037  0.9929 0.0045  0.8583 0.0762  0.8418 0.0762  1.0000 0  1.0000 0  1.0000 0  1.0000 0  1.0000 0  0.9959 0.0026  0.9990 0.0011  1.0000 0  0.9999 0.0004  1.0000 0  0.9991 0.0011  0.9990 0.0010  0.8598 0.0109  0.8498 0.0127  0.8671 0.0139  0.8637 0.0157  0.8755 0.0187  0.8600 0.0114  0.8628 0.0132  0.3875 0.0595  0.4292 0.1241  0.7175 0.0473  0.9556 0.0625  0.9834 0.0099  0.5059 0.0335  0.9624 0.0917  0.0903 0.0544  0.1499 0.0108  0.0975 0.0391  0.1495 0.0133  0.1270 0.0291  0.0599 0.0321  0.1415 0.0150 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| W-1  W-2  W-3  W-4  W-5  W-6  W-7  W-8  W-9 | Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt)  Two-Ar  GRID  SDE  Grid+SDE  SRA  SDE\_sqrt(dis)  Grid+SDE(sqrt) | 0.6182 0.0171  0.6080 0.0143  0.6149 0.0153  0.6180 0.0175  0.6113 0.0165  0.5825 0.0191  0.5935 0.0157  0.3895 0.0197  0.3406 0.0263  0.3734 0.0176  0.3959 0.0209  0.4143 0.0173  0.3034 0.0376  0.3403 0.0195  0.4725 0.0160  0.4711 0.0156  0.4670 0.0207  0.4622 0.0187  0.4891 0.0132  0.4051 0.0186  0.4166 0.0155  0.2385 0.0123  0.2424 0.0122  0.2280 0.0143  0.2395 0.0152  0.2527 0.0122  0.1635 0.0149  0.1793 0.0173  0.2956 0.0149  0.2975 0.0168  0.2879 0.0152  0.2875 0.0160  0.3045 0.0152  0.2341 0.0139  0.2428 0.0142  0.2905 0.0142  0.2959 0.0120  0.2850 0.0139  0.2926 0.0144  0.3073 0.0154  0.2163 0.0211  0.2351 0.0137  0.2796 0.0183  0.2414 0.0254  0.2706 0.0147  0.2431 0.0255  0.2845 0.0140  0.2461 0.0136  0.2438 0.0161  0.4117 0.0176  0.2770 0.0233  0.3812 0.0189  0.3453 0.0221  0.4900 0.0157  0.3542 0.0247  0.3520 0.0225  0.2163 0.0132  0.2121 0.0116  0.2099 0.0140  0.2114 0.0163  0.2256 0.0151  0.1683 0.0134  0.1790 0.0130 | 0.9745 0.0058  0.9797 0.0045  0.9749 0.0041  0.9755 0.0050  0.9710 0.0059  0.9183 0.0130  0.9352 0.0139  0.1640 0.0925  0.4091 0.0672  0.1859 0.1000  0.4278 0.0641  0.4711 0.0232  0.0432 0.0567  0.1476 0.0963  0.2117 0.0155  0.2269 0.0125  0.2275 0.0138  0.2352 0.0125  0.2567 0.0145  0.1727 0.0144  0.1845 0.0159  0.2606 0.0165  0.2671 0.0169  0.2878 0.0134  0.2915 0.0144  0.3834 0.0122  0.1944 0.0204  0.2188 0.0198  0.2757 0.0158  0.2717 0.0121  0.2680 0.0113  0.2687 0.0109  0.2654 0.0129  0.2094 0.0149  0.2079 0.0123  0.2644 0.0255  0.2654 0.0223  0.2714 0.0226  0.2754 0.0218  0.2683 0.0175  0.1971 0.0233  0.2206 0.0166  0.4483 0.0169  0.4484 0.0207  0.4506 0.0159  0.4445 0.0229  0.4917 0.0168  0.3041 0.0285  0.3318 0.0251  0.1436 0.0184  0.1611 0.0241  0.1455 0.0295  0.1616 0.0323  0.2361 0.0227  0.0641 0.0284  0.0896 0.0282  0.3495 0.0148  0.3522 0.0246  0.3757 0.0200  0.3483 0.0237  0.5239 0.0205  0.2825 0.0224  0.2751 0.0230 | 0.9925 0.0025  0.9929 0.0027  0.9928 0.0032  0.9933 0.0025  0.9843 0.0048  0.9677 0.0123  0.9763 0.0058  0.0482 0.0598  0.3187 0.0871  0.0530 0.0549  0.3100 0.1321  0.4307 0.0501  0.0161 0.0338  0.0902 0.0820  0.1076 0.0122  0.1160 0.0137  0.1470 0.0137  0.1548 0.0159  0.1688 0.0136  0.1007 0.0176  0.1113 0.0131  0.2114 0.0162  0.2262 0.0138  0.2589 0.0156  0.2870 0.0173  0.3765 0.0190  0.1915 0.0167  0.2190 0.0160  0.2420 0.0106  0.2390 0.0126  0.2620 0.0158  0.2615 0.0154  0.2171 0.0149  0.1819 0.0147  0.1942 0.0142  0.2064 0.0319  0.1816 0.0373  0.2147 0.0396  0.2247 0.0371  0.1699 0.0325  0.1454 0.0328  0.1517 0.0287  0.4037 0.0211  0.4219 0.0231  0.4510 0.0219  0.4659 0.0154  0.5441 0.0158  0.1975 0.0355  0.2877 0.0229  0.0987 0.0240  0.1214 0.0239  0.1101 0.0333  0.1260 0.0232  0.2030 0.0194  0.0447 0.0253  0.0595 0.0242  0.4040 0.0684  0.3345 0.0389  0.4213 0.0623  0.3260 0.0318  0.5789 0.0285  0.2613 0.0255  0.2427 0.0266 | 0.9883 0.0041  0.9892 0.0031  0.9929 0.0027  0.9942 0.0026  0.9908 0.0029  0.8189 0.0275  0.8102 0.0362  0.0131 0.0184  0.1182 0.0474  0.0629 0.0477  0.2803 0.0785  0.4753 0.0539  0.0389 0.0387  0.1108 0.0899  0.0660 0.0171  0.0744 0.0205  0.1137 0.0138  0.1316 0.0151  0.1483 0.0117  0.0802 0.0167  0.0830 0.0165  0.2698 0.0176  0.2856 0.0189  0.3602 0.0202  0.3877 0.0189  0.4794 0.0284  0.2190 0.0199  0.2467 0.0230  0.2707 0.0178  0.2467 0.0173  0.3096 0.0144  0.3022 0.0135  0.2272 0.0214  0.1657 0.0212  0.1943 0.0210  0.1710 0.0410  0.1562 0.0463  0.2164 0.0446  0.2233 0.0400  0.1452 0.0197  0.1330 0.0319  0.1488 0.0298  0.3688 0.0187  0.3776 0.0263  0.4596 0.0196  0.4699 0.0217  0.5777 0.0154  0.1699 0.0255  0.2023 0.0244  0.1162 0.0313  0.1144 0.0306  0.1402 0.0397  0.1599 0.0303  0.1571 0.0161  0.0644 0.0278  0.0657 0.0229  0.5215 0.0232  0.4527 0.0352  0.5736 0.0645  0.4807 0.0651  0.6619 0.0331  0.2392 0.0285  0.2821 0.0588 | 0.9857 0.0035  0.9874 0.0038  0.9950 0.0018  0.9937 0.0024  0.9955 0.0023  0.9108 0.0139  0.9079 0.0236  0.0112 0.0119  0.0640 0.0622  0.0644 0.0463  0.2458 0.1114  0.5181 0.0301  0.0437 0.0423  0.1075 0.0915  0.0538 0.0187  0.0539 0.0172  0.0930 0.0130  0.1014 0.0151  0.1284 0.0190  0.0723 0.0183  0.0720 0.0147  0.2147 0.0163  0.2259 0.0195  0.2839 0.0209  0.3312 0.0160  0.4789 0.0336  0.1944 0.0208  0.2195 0.0236  0.2253 0.0200  0.2066 0.0160  0.3029 0.0139  0.3028 0.0200  0.1754 0.0198  0.1347 0.0322  0.1652 0.0235  0.1352 0.0371  0.1347 0.0408  0.1904 0.0386  0.1917 0.0471  0.1176 0.0269  0.1026 0.0302  0.1312 0.0328  0.2954 0.0231  0.3054 0.0247  0.4368 0.0221  0.4378 0.0218  0.6189 0.0186  0.1670 0.0333  0.1982 0.0235  0.0964 0.0373  0.0801 0.0283  0.1229 0.0361  0.1354 0.0351  0.1408 0.0167  0.0385 0.0291  0.0572 0.0282  0.4688 0.0255  0.4165 0.0280  0.5293 0.0622  0.4841 0.0602  0.7040 0.0284  0.2190 0.0269  0.2859 0.0578 |

~~Date: 12-12-2017: Change in update DA file : use Unique IN MAIN FILE and selecting distances similar like fronts) : all are two ar modifications~~

~~D:\OUR\_CODES\SRA&TWO\_AR\_NEW\_algortihms\TWO-Ar\_GRID\_SDE\_algorithms\Two\_Ar\_GRID+SDE\_sqrt(N)\Two\_Ar\_GRID+SDE\_sqrt(N)-DTLZ\Two\_Ar\_Grid+SDE\_diffDIS~~

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ~~P~~ | ~~Algorithm~~ | ~~2~~ | ~~4~~ | ~~6~~ | ~~8~~ | ~~10~~ |
| ~~D-1~~  ~~D-2~~  ~~D-3~~  ~~D-4~~  ~~D-5~~  ~~D-6~~  ~~D-7~~ | ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~  ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~  ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~  ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~  ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~  ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~  ~~Two-Ar~~  ~~GRID~~  ~~SDE~~  ~~Grid+SDE~~  ~~SRA~~  ~~Grid+SDE(diffDIS)~~ | ~~0.1420 0.1995~~  ~~0 0~~  ~~0 0~~  ~~0.2239 0.1950~~  ~~0.4928 0.0167~~  ~~0.1268 0.1682~~  ~~0.1977 0.0110~~  ~~0.1013 0.0193~~  ~~0.1843 0.0101~~  ~~0.1893 0.0146~~  ~~0.2092 0.0133~~  ~~0.1911 0.0110~~  ~~0 0~~  ~~0 0~~  ~~0 0~~  ~~0 0~~  ~~0.2088 0.0128~~  ~~0 0~~  ~~0.1828 0.0520~~  ~~0.0212 0.0306~~  ~~0.1704 0.0354~~  ~~0.1104 0.0907~~  ~~0.1873 0.0648~~  ~~0.0976 0.0800~~  ~~0.1972 0.0104~~  ~~0.1026 0.0242~~  ~~0.1819 0.0161~~  ~~0.1951 0.0155~~  ~~0.2052 0.0115~~  ~~0.1880 0.0152~~  ~~0.0098 0.0253~~  ~~0 0~~  ~~0 0~~  ~~0 0~~  ~~0.2109 0.0123~~  ~~0.0003 0.0016~~  ~~0.0862 0.0345~~  ~~0.0083 0.0250~~  ~~0.0793 0.0255~~  ~~0.0304 0.0304~~  ~~0.1184 0.0283~~  ~~0.0426 0.0332~~ | ~~0.0206 0.0757~~  ~~0.1722 0.2746~~  ~~0.1132 0.2121~~  ~~0.7691 0.2229~~  ~~0.9043 0.0080~~  ~~0.6513 0.3089~~  ~~0.7193 0.0329~~  ~~0.7530 0.0307~~  ~~0.8124 0.0144~~  ~~0.8283 0.0167~~  ~~0.8662 0.0105~~  ~~0.8167 0.0121~~  ~~0 0~~  ~~0 0~~  ~~0 0~~  ~~0 0~~  ~~0.9435 0.0084~~  ~~0.0240 0.1313~~  ~~0.4531 0.0263~~  ~~0.4847 0.1180~~  ~~0.5539 0.0239~~  ~~0.4980 0.0881~~  ~~0.6292 0.0858~~  ~~0.4967 0.1485~~  ~~0.7102 0.0128~~  ~~0.7253 0.0163~~  ~~0.7209 0.0146~~  ~~0.7273 0.0176~~  ~~0.7347 0.0108~~  ~~0.7207 0.0127~~  ~~0.2852 0.0645~~  ~~0.3694 0.0955~~  ~~0.5304 0.0554~~  ~~0.7970 0.0416~~  ~~0.9385 0.0071~~  ~~0.7732 0.0346~~  ~~0.0738 0.0480~~  ~~0.1026 0.0166~~  ~~0.0801 0.0399~~  ~~0.0944 0.0146~~  ~~0.1841 0.0133~~  ~~0.0938 0.0146~~ |  |  |  |

D:\OUR\_CODES\SRA&TWO\_AR\_NEW\_algortihms\TWO-Ar\_GRID\_SDE\_algorithms\Two-ar-Grid\_SDE\_(unique\_objspace)\DTLZ\_codefor\_obj&POP

6.**Unique solution space in OBJ spac**e(in main) & in updateDA\_SDE used 🡪SDE(min(distcane)i.e.sde1

(03/01/2018)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| D-1  D-2  D-3  D-4  D-5  D-6  D-7 | Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)    Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)    Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)    Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ | 0.1381 0.1972  0 0  0 0  0.2232 0.1937  0.4952 0.0190  0.4809 0.0148  0.1950 0.0126  0.0994 0.0190  0.1812 0.0133  0.1928 0.0131  0.2073 0.0121  0.1908 0.0111  0 0  0 0  0 0  0 0  0.2088 0.0105  0.1873 0.0138  0.1791 0.0502  0.0204 0.0288  0.1725 0.0368  0.1088 0.0892  0.1909 0.0656  0.1158 0.0861  0.1947 0.0122  0.1005 0.0242  0.1881 0.0146  0.1876 0.0114  0.2111 0.0143  0.1948 0.0112  0.0106 0.0281  0 0  0 0  0 0  0.2101 0.0137  0 0  0.0867 0.0356  0.0086 0.0250  0.0822 0.0250  0.0302 0.0312  0.1155 0.0267  0.0320 0.0304 | 0.0191 0.0699  0.1759 0.2779  0.1146 0.2174  0.7742 0.2238  0.9044 0.0080  0.8839 0.0132  0.7167 0.0277  0.7501 0.0317  0.8152 0.0141  0.8261 0.0134  0.8699 0.0113  0.8272 0.0167  0 0  0 0  0 0  0.0553 0.1072  0.9319 0.0086  0.9119 0.0143  0.4567 0.0271  0.4896 0.1218  0.5563 0.0229  0.4979 0.0902  0.6394 0.0848  0.4843 0.1451  0.7146 0.0160  0.7291 0.0121  0.7176 0.0165  0.7242 0.0127  0.7282 0.0160  0.7234 0.0151  0.2880 0.0648  0.3680 0.0912  0.5258 0.0593  0.7967 0.0436  0.9373 0.0065  0.7902 0.0428  0.0786 0.0500  0.1009 0.0169  0.0803 0.0371  0.0953 0.0124  0.1837 0.0089  0.0985 0.0158 | 0 0  0 0  0.6844 0.1552  0.9065 0.1389  0.9995 0.0008  0.9957 0.0049  0.8578 0.0271  0.9114 0.0335  0.9795 0.0052  0.9859 0.0043  0.9939 0.0022  0.9849 0.0043  0.5985 0.1963  0.5300 0.1853  0.9951 0.0051  1.0000 0.0002  1.0000 0  1.0000 0  0.9839 0.0069  0.9922 0.0034  0.9975 0.0014  0.9938 0.0072  0.9984 0.0016  0.9937 0.0054  0.7851 0.0136  0.7864 0.0140  0.7906 0.0193  0.7820 0.0157  0.8040 0.0158  0.7878 0.0201  0.3545 0.0497  0.3395 0.0453  0.6695 0.0789  0.8667 0.0600  0.9842 0.0070  0.8592 0.0712  0.0584 0.0358  0.0933 0.0110  0.0603 0.0324  0.0845 0.0102  0.1593 0.0153  0.0849 0.0107 | 0 0  0 0  0.9434 0.0892  0.9752 0.0397  1.0000 0  0.9986 0.0033  0.8974 0.0340  0.9722 0.0183  0.9916 0.0043  0.9952 0.0026  0.9987 0.0016  0.9956 0.0023  0.7880 0.0700  0.8022 0.0850  1.0000 0  1.0000 0  1.0000 0  1.0000 0  0.9927 0.0050  0.9975 0.0021  0.9998 0.0004  0.9993 0.0011  1.0000 0  0.9995 0.0009  0.8458 0.0127  0.8384 0.0109  0.8407 0.0179  0.8357 0.0222  0.8512 0.0160  0.8383 0.0195  0.4142 0.0422  0.4372 0.0411  0.7364 0.0415  0.8736 0.0426  0.9848 0.0092  0.8693 0.0466  0.0434 0.0325  0.0786 0.0118  0.0400 0.0241  0.0767 0.0120  0.0792 0.0176  0.0733 0.0118 | 0 0  0.0714 0.2123  0.9867 0.0298  0.9656 0.0526  1.0000 0  0.9934 0.0112  0.9708 0.0277  0.9844 0.0085  0.9976 0.0017  0.9968 0.0028  0.9999 0.0003  0.9965 0.0033  0.8068 0.1051  0.7949 0.0895  1.0000 0  1.0000 0  1.0000 0  1.0000 0  0.9965 0.0026  0.9993 0.0009  1.0000 0  0.9999 0.0004  1.0000 0  1.0000 0  0.8605 0.0108  0.8552 0.0103  0.8613 0.0174  0.8633 0.0135  0.8738 0.0142  0.8568 0.0173  0.3853 0.0628  0.4249 0.1314  0.7106 0.0521  0.9563 0.0615  0.9844 0.0103  0.9406 0.0881  0.0887 0.0540  0.1552 0.0100  0.0985 0.0410  0.1501 0.0110  0.1300 0.0315  0.1537 0.0121 |

D:\OUR\_CODES\SRA&TWO\_AR\_NEW\_algortihms\TWO-Ar\_GRID\_SDE\_algorithms\Two-ar-Grid\_SDE\_(unique\_objspace)\DTLZ\_codefor\_obj&POP

6.**Unique solution space in OBJ spac**e(in main) & in updateDA\_SDE used 🡪SDE(min(distcane)i.e.sde1

7.**unique solutions in POP SPACE**(from 6,diff in main file only) (04/01/2018)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P | Algorithm | 2 | 4 | 6 | 8 | 10 |
| D-1  D-2  D-3  D-4  D-5  D-6  D-7 | Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Grid+SDE(uniquePOP)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Grid+SDE(uniquePOP)    Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  rid+SDE(uniquePOP)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Grid+SDE(uniquePOP)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Grid+SDE(uniquePOP)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ)  Grid+SDE(uniquePOP)  Two-Ar  GRID  SDE  Grid+SDE  SRA  Grid+SDE(uniqueOBJ  Grid+SDE(uniquePOP) | 0.1420 0.2011  0 0  0 0  0.2249 0.1954  0.4966 0.0133  0.4772 0.0165  0.1360 0.1925  0.2014 0.0156  0.0991 0.0209  0.1794 0.0113  0.1909 0.0129  0.2107 0.0156  0.1913 0.0150  0.1881 0.0129  0 0  0 0  0 0  0 0  0.2070 0.0132  0.1865 0.0186  0 0  0.1823 0.0503  0.0205 0.0286  0.1699 0.0351  0.1079 0.0886  0.1887 0.0654  0.1154 0.0850  0.1413 0.0693  0.1967 0.0153  0.1008 0.0240  0.1858 0.0134  0.1901 0.0156  0.2061 0.0117  0.1957 0.0128  0.1911 0.0114  0.0106 0.0286  0 0  0 0  0 0  0.2098 0.0097  0 0  0 0  0.0839 0.0323  0.0088 0.0263  0.0817 0.0268  0.0286 0.0272  0.1183 0.0259  0.0321 0.0295  0.0449 0.0330 | 0.0201 0.0730  0.1766 0.2755  0.1140 0.2135  0.7688 0.2228  0.9047 0.0087  0.8859 0.0132  0.7421 0.2362  0.7153 0.0313  0.7494 0.0275  0.8129 0.0121  0.8239 0.0156  0.8690 0.0108  0.8303 0.0121  0.8244 0.0136  0 0  0 0  0 0  0.0580 0.1116  0.9282 0.0084  0.9134 0.0144  0.0638 0.1489  0.4603 0.0305  0.4859 0.1283  0.5604 0.0264  0.5006 0.0899  0.6344 0.0842  0.4880 0.1407  0.5297 0.0984  0.7127 0.0163  0.7294 0.0150  0.7180 0.0158  0.7228 0.0110  0.7351 0.0118  0.7270 0.0118  0.7194 0.0172  0.2884 0.0687  0.3645 0.0922  0.5299 0.0595  0.7966 0.0452  0.9356 0.0082  0.7885 0.0428  0.7841 0.0486  0.0736 0.0484  0.1034 0.0183  0.0787 0.0359  0.0954 0.0125  0.1870 0.0140  0.0972 0.0168  0.0894 0.0180 | 0 0  0 0  0.6862 0.1576  0.9054 0.1444  0.9995 0.0006  0.9964 0.0043  0.9213 0.1190  0.8494 0.0272  0.9122 0.0364  0.9800 0.0055  0.9853 0.0045  0.9931 0.0018  0.9844 0.0050  0.9859 0.0052  0.5978 0.1977  0.5302 0.1849  0.9961 0.0033  1.0000 0  1.0000 0  1.0000 0  1.0000 0  0.9849 0.0077  0.9925 0.0043  0.9978 0.0015  0.9929 0.0088  0.9986 0.0011  0.9940 0.0053  0.9928 0.0071  0.7851 0.0126  0.7902 0.0114  0.7925 0.0180  0.7836 0.0182  0.8064 0.0140  0.7826 0.0187  0.7847 0.0165  0.3479 0.0495  0.3458 0.0444  0.6705 0.0779  0.8649 0.0552  0.9841 0.0092  0.8602 0.0643  0.8606 0.0688  0.0579 0.0372  0.0921 0.0108  0.0604 0.0345  0.0851 0.0133  0.1616 0.0117  0.0825 0.0101  0.0861 0.0111 | 0 0  0 0  0.9435 0.0896  0.9753 0.0348  1.0000 0.0002  0.9986 0.0043  0.9498 0.0695  0.9026 0.0311  0.9743 0.0184  0.9909 0.0049  0.9957 0.0026  0.9983 0.0013  0.9952 0.0019  0.9949 0.0029  0.7850 0.0686  0.7998 0.0892  1.0000 0  1.0000 0  1.0000 0  1.0000 0  1.0000 0  0.9916 0.0047  0.9980 0.0018  0.9999 0.0003  0.9993 0.0014  0.9999 0.0003  0.9995 0.0009  0.9995 0.0009  0.8457 0.0137  0.8379 0.0123  0.8425 0.0204  0.8345 0.0208  0.8534 0.0184  0.8415 0.0227  0.8433 0.0178  0.4134 0.0471  0.4468 0.0406  0.7303 0.0424  0.8729 0.0450  0.9845 0.0096  0.8690 0.0508  0.8720 0.0518  0.0411 0.0304  0.0790 0.0086  0.0381 0.0239  0.0743 0.0146  0.0754 0.0165  0.0733 0.0094  0.0725 0.0089 | 0 0  0.0708 0.2112  0.9876 0.0277  0.9683 0.0497  1.0000 0  0.9933 0.0125  0.9821 0.0212  0.9697 0.0300  0.9864 0.0088  0.9978 0.0018  0.9965 0.0031  0.9999 0.0004  0.9973 0.0028  0.9961 0.0020  0.8117 0.1056  0.7847 0.0940  1.0000 0.0002  1.0000 0  1.0000 0  1.0000 0  1.0000 0  0.9962 0.0033  0.9989 0.0012  0.9999 0.0003  0.9999 0.0003  1.0000 0  1.0000 0.0002  0.9999 0.0004  0.8592 0.0092  0.8504 0.0113  0.8572 0.0175  0.8634 0.0125  0.8747 0.0108  0.8534 0.0194  0.8612 0.0141  0.3827 0.0574  0.4191 0.1328  0.7156 0.0573  0.9534 0.0648  0.9830 0.0093  0.9414 0.0858  0.9789 0.0326  0.0901 0.0539  0.1549 0.0158  0.0965 0.0387  0.1485 0.0133  0.1261 0.0299  0.1523 0.0118  0.1465 0.0100 |